Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-18 (canceled)

19. (new) A method for inducing tolerance in a patient to a graft from a mismatched donor comprising the steps of:

a) ablating the patient's T cells;

b) reactivating the patient's thymus; and

c) delivering donor cells to the patient wherein the donor cells are selected from the group consisting of hematopoietic stem cells, lymphoid progenitor cells, myeloid progenitor cells, epithelial stem cells, and mixtures thereof, wherein the donor cells are histocompatibility matched to the graft.

20. (new) The method of claim 19 wherein step (c) is accomplished prior to step (b).

21. (new) The method of claim 19 wherein step (c) is accomplished during step (b).

22. (new) The method of claim 19 wherein the donor cells include genetically modified cells having at least partial resistance to an infectious agent.

23. (new) The method of claim 22 wherein the infectious agent is a virus.

24. (new) The method of claim 23 wherein the virus is a flu virus or an HIV.

25. (new) The method of claim 19 wherein the patient's thymus has been at least partially deactivated.

26. (new) The method of claim 19 wherein the patient is post-pubertal.

27. (new) The method of claim 19 wherein the patient has or had a disease, or has or had a treatment of a disease that at least in part deactivated the patient's thymus.

28. (new) The method of claim 27 wherein the disease is cancer.

29. (new) The method of claim 28 wherein the disease is prostate cancer.

30. (new) The method of claim 27 wherein the disease is HIV infection.

31. (new) The method of claim 27 wherein the treatment is chemotherapy.

32. (new) The method of claim 19 wherein ablation of the patient's T-cells comprises delivery of one or more anti-T cell antibodies, inhibitors of T cell activation or combinations thereof.

33. (new) The method of claim 19 including the step of delivering a suppressor of adrenal gland production of a sex steroid.

34. (new) The method of claim 19 including the step of administering an immunosuppressant to the patient.

35. (new) The method of claim 19 wherein the donor cells have been collected from a mismatched donor who had been given a dose of about 10 μg/kg granulocyte-colony stimulating factor prior to collection of the donor cells.

36. (new) The method of claim 19 wherein the donor cells have been expanded *ex vivo*.

37. (new) The method of claim 19 wherein the donor cells include about 2 to about 4 x 10^6 cells/kg.

38. (new) The method of claim 19 wherein the mismatched donor graft and/or cell(s) include genetically modified cells that are capable of enhancing a patient's immune system.

39. (new) The method of claim 34 wherein the immunosuppressant is selected from the group consisting of an anti-T cell antibody, a xeno anti-T cell globulin, a cyclosporin and a combination thereof.

40. (new) The method of claim 19 wherein induction of tolerance in the patient includes disrupting sex steroid mediated signaling to the patient's thymus.

41. (new) The method of claim 40 wherein disruption of sex steroid mediated signaling to the patient's thymus is accomplished through blocking of one or more sex steroid receptors within the patient's thymus.

42. (new) The method of claim 41 wherein disruption of sex steroid mediated signaling to the patient's thymus is through administration of one or more pharmaceuticals that can lower the concentration of sex steroids in a patient.

43. (new) The method of claim 42 wherein the one or more pharmaceuticals is administered in a formulation including a pharmaceutically acceptable carrier suitable for oral,

parenteral, subcutaneous, topical, intravenous or intramuscular administration, or a combination thereof.

44. (new) The method of claim 42 wherein the one or more pharmaceuticals is selected from the group consisting of LHRH analogs, anti-LHRH vaccines, anti-sex steroid vaccines and combinations thereof.

45. (new) The method of claim 44 wherein the LHRH analog is selected from the group consisting of an LHRH-R agonist, LHRH-R antagonist, anti-LHRH vaccine, anti-LHRH-R vaccine, anti-sex steroid vaccine, anti-LHRH receptor antibody, anti-estrogen antibody, anti-androgen antibody, passive anti-LHRH vaccine, active anti-LHRH vaccine and a combination thereof.

46. (new) The method of claim 45 wherein the LHRH-R agonist is selected from the group consisting of Buserelin, Cysterelin, Decapeptyl, Deslorelin, Gonadorelin, Goserelin, Histrelin, Leuprolide, Leuprorelin, Lutrelin, Meterelin, Nafarelin, Triptorelin, and combinations thereof.

47. (new) The method of claim 45 wherein the LHRH-R antagonist selected from the group consisting of Eulexin, Abarelix, Cetrorelix, and combinations thereof.

48. (new) The method of claim 42 wherein the one or more pharmaceuticals is an LHRH analog having a dose between about 0.01 μg/kg and about 10 mg/kg.

49. (new) The method of claim 48 wherein the dose is between about 0.01 mg/kg and about 5 mg/kg.

50. (new) The method of claim 42 wherein the LHRH analog is a 22.5 mg depot injection of Leucrin or a 10.8 mg Zoladex implant.

51. (new) The method of claim 19 including the step of delivering to the patient, one or more pharmaceuticals selected from the group consisting of cytokines, growth factors, steroid receptor modulators, enhancing compounds and combinations thereof.

52. (new) The method of claim 19 wherein reactivation of the patient's thymus restores the patient's peripheral T cell levels to a level corresponding to that found in a pre-pubertal person.

53. (new) A kit for use in improving graft acceptance in a patient comprising the following components:

an LHRH analog; and

at least one donor cell selected from the group consisting of hematopoietic stems, lymphoid progenitor cells, myeloid progenitor cells, epithelial stem cells, genetically modified stem cells and mixtures thereof.